

REMARKS

Claims 1-6 are now presented for examination. Claims 1 and 2 have been amended.

Claims 5 and 6 are new. No new matter has been added. A Power of Attorney and Statement Under 37 C.F.R. § 3.73(b) are enclosed herewith to give the undersigned power to act on the subject Application.

Claims 1, 2, 4 and 5 are independent.

On page 2 of the Office Action, Claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as his invention. Specifically, the Office Action states, "Claim 1 recites the limitation 'said first signal' in line 9. There is insufficient antecedent basis for this limitation in the claim, wherein claims 2 and 3 directly or indirectly depend on claim 1." Claim 1 has been amended to recite the limitation "said pseudo-data" signal. The proper antecedent basis is provided, and the 35 U.S.C. § 112, second paragraph, rejection is overcome.

Accordingly, Applicant respectfully requests the withdrawal of this rejection.

On page 2 of the Office Action, Claims 1 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Buchwald (USP 5,757,857). The Office Action states the AAPA discloses a method and a device for determining an optimized decision threshold for a high speed, high rate data regenerator, but that "AAPA does not teach a low pass filter for separating a DC component from a first signal and using said DC component to provide said optimized decision threshold."

The Office Action further states "Buchwald teaches regeneration circuit (see Fig. 3) comprising a low pass filter (58) receiving an error signal (output of 84) for separating a DC component and providing the output to a VCO for timing correction. (note col.3, line 48 – col. 4,

line 14).” The Office Action concludes that “it would have been obvious to one skilled in the art at the time of the invention to modify AAPA’s 44 and 45 error signals, thus improving AAPA’s system by filtering error values of in the vicinity of ‘logical 0 or 1’ is further processed as a DC value and increasing accuracy of the regeneration of the recovered data signal.”

To establish a *prima facie* case of obviousness, a few basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP § 2143.

In this case, the Office Action does not establish a *prima facie* case of obviousness. Specifically, there is no suggestion or motivation to combine the AAPA and the Buchwald references. The Buchwald reference is defined as a “clock recovery or extraction circuit” and used to extract a clock signal from random, nonreturn-to-zero (NRZ) data (see col. 6, lines 62-64). The Buchwald reference specifically teaches that “the ultimate goal is to position the phase of the recovered clock so that the sample is taken at the point where the filtered data signal achieves a maximum signal-to-noise ratio” (see col. 8, lines 34-37). The point of Buchwald is therefore to create a clock signal to maximize data recovery. In contrast, the present invention does not relate to clock recovery. Rather, the present invention is directed toward a method and device “to provide a smart receiver design, wherein the decision threshold is optimized for low signal-to-noise ratio (SNR) situations” (page 4, lines 1-3). Put another way, Applicant’s invention operates independently of the received clock signal and works in low SNR environments to set decision thresholds as opposed to driving a VCO for clock recovery.

Accordingly, the Buchwald reference bears no relation to the current invention and a combination of the AAPA and Buchwald would render the AAPA invention to be modified in a manner that is unsatisfactory and inoperable for its intended purpose. Thus, there is no suggestion or motivation to make the proposed modification and the Examiner has not met the burden of factually supporting a *prima facie* conclusion of obviousness. Accordingly, Applicant respectfully requests the withdrawal of this rejection.

For the reasons stated above with respect to Claim 1, Applicant believes that Claim 4 is also in condition for allowance and Applicant requests reconsideration and allowance of that claim.

New independent Claim 5 includes the step of "varying said preset threshold linearly from a high value to a low value to provide said DC component as a representative of the eye of said pseudo-data signal component" which the Examiner has indicated is allowable subject matter. Therefore, new independent Claim 5 is believed to be in condition for allowance and Applicant requests reconsideration and allowance of that claim.

Claim 6 depends directly from independent Claim 5 discussed above. This claim recites additional limitations that, in conformity with the features of its corresponding independent claim, are not disclosed or suggested by the art of record. The dependent Claim 6 is therefore believed patentable. However, the individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

On page 4 of the Office Action, the Examiner states that Claims 2-3 would be allowable if rewritten to overcome the rejections under 5 U.S.C. § 112, second paragraph. Applicant has amended Claim 2 to include all of the limits of the base Claim 1. Accordingly, amended Claim 2 is believed to be in condition for allowance and Applicant requests reconsideration and

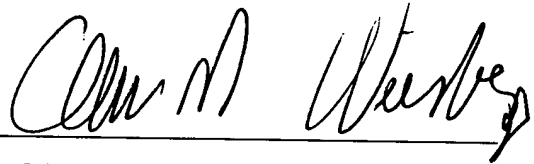
allowance of that claim. Claim 3 depends directly from amended Claim 2 discussed above. Accordingly, Claim 3 is believed to be in condition for allowance and Applicant requests reconsideration and allowance.

For all of the above reasons, the claim rejections are believed to have been overcome placing Claims 1-6 in condition for allowance, and reconsideration and allowance thereof is respectfully requested.

The Examiner is encouraged to telephone the undersigned to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

Date: December 20, 2004

A handwritten signature in black ink, appearing to read 'Alan M. Weisberg', is written over a horizontal line.

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